

Barbara J. Winslow and Mark D. Cochran  
Serial No.: Not Yet Known  
Filed: Herewith

- 39<sup>3</sup>. (New) The recombinant virus of claim 38<sup>2</sup> which comprises at least three foreign nucleic acids, each inserted within a non-essential region of the viral genome.
- 40<sup>4</sup>. (New) The recombinant virus of claim 38<sup>2</sup> which comprises four foreign nucleic acids, each inserted within a non-essential region of the viral genome.
- 41<sup>5</sup>. (New) The recombinant virus of claim 37<sup>1</sup>, wherein the virus is raccoonpox virus, a swinepox virus, or a feline herpesvirus.
- 42<sup>6</sup>. (New) The recombinant virus of claim 37<sup>1</sup> comprising more than one foreign nucleic acid, wherein each foreign nucleic acid is inserted into the same nonessential region.
- 43. (New) The recombinant virus of claim 37<sup>1</sup> comprising more than one foreign nucleic acid wherein all such foreign nucleic acids are not inserted into the same nonessential region.
- 44<sup>8</sup>. (New) The recombinant virus of claim 37<sup>1</sup> further comprising a foreign nucleic acid encoding an immunogen derived from a pathogen.
- 45<sup>9</sup>. (New) The recombinant virus of claim 44<sup>8</sup>, wherein the pathogen is a feline pathogen, a rabies virus, Chlamydia, Toxoplasmosis gondii, Dirofilaria immitis, a flea, or a bacterial pathogen.
- 46<sup>10</sup>. (New) The recombinant virus of claim 45<sup>9</sup>, wherein the feline pathogen is feline immunodeficiency virus (FIV), feline leukemia virus (FeLV), feline infectious peritonitis virus (FIP), feline panleukopenia virus, feline calicivirus, feline reovirus type 3, feline

Sub C 2

Sub D 1

Barbara J. Winslow and Mark D. Cochran  
Serial No.: Not Yet Known  
Filed: Herewith

rotavirus, feline coronavirus, feline syncytial virus, feline sarcoma virus, feline herpesvirus, feline Borna disease virus, or a feline parasite.

<sup>11</sup>  
--47. (New) The recombinant virus of claim 37<sup>1</sup>, wherein at least one foreign nucleic acid comprises a promoter for expressing the foreign nucleic acid.

<sup>12</sup>  
--48. (New) The recombinant virus of claim 37<sup>1</sup>, wherein the expression of a least one foreign nucleic acids is under the control of a promoter ~~endogenous~~ <sup>endogenous</sup> to the virus.

<sup>13</sup>  
--49. (New) The recombinant virus of claim 37<sup>1</sup> further comprising a foreign nucleic acid encoding a detectable marker.

<sup>14</sup>  
--50. (New) The recombinant virus of claim 49<sup>13</sup>, wherein the detectable marker is E.coli beta galactosidase.

<sup>15</sup>  
--51. (New) The recombinant virus of claim 46<sup>10</sup>, wherein the immunogen from a feline pathogen is FIV gag protease, a FIV envelope protein, a FeLV gag protease, or a FeLV envelope protein.

<sup>16</sup>  
--52. (New) The recombinant virus of claim 37<sup>1</sup>, wherein the virus is a feline herpesvirus and the a nonessential region is the glycoprotein G gene of feline herpes virus.

<sup>17</sup>  
--53. (New) The recombinant feline herpesvirus of claim 48<sup>12</sup> designated S-FHV-031 (ATCC Accession No. VR-2604).

<sup>18</sup>  
--54. (New) The recombinant virus of claim 37<sup>1</sup>, wherein the virus is swinepox virus and the nonessential region is the larger Hind III to Bgl II subfragment of the Hind III M fragment of swinepox virus.

a

Barbara J. Winslow and Mark D. Cochran  
Serial No.: Not Yet Known  
Filed: Herewith

<sup>19</sup>  
--55. (New) The recombinant feline swinepox of claim <sup>14</sup>50<sup>14</sup> designated S-SPV-246 (ATCC Accession No. VR-2603).

<sup>20</sup>  
--56. (New) The recombinant virus of any of claim <sup>1</sup>37<sup>1</sup>, wherein the portion of the CD28, CD80, or CD86 protein is the soluble portion of the protein.

<sup>21</sup>  
--57. (New) The recombinant virus of claim <sup>1</sup>37<sup>1</sup>, where the foreign nucleic acid encodes the feline CTLA-4 protein.

<sup>22</sup>  
--58. (New) A vaccine which comprising an effective immunizing amount of the recombinant virus of claim <sup>1</sup>37<sup>1</sup> and a suitable carrier.

<sup>23</sup>  
--59. (New) The vaccine of claim <sup>22</sup>58<sup>22</sup>, wherein the effective immunizing amount of the recombinant virus is an amount between about  $1 \times 10^5$  pfu/ml and about  $1 \times 10$  cfu/ml.

<sup>24</sup>  
--60. (New) The vaccine of claims <sup>22</sup>58<sup>22</sup> which further comprises an admixture with the recombinant virus an effective immunizing amount of an a second immunogen.

<sup>25</sup>  
--61. (New) A method for enhancing an immune response in a feline which comprises administering to the feline an effective immunizing amount of the recombinant virus of claim <sup>1</sup>37<sup>1</sup>.

<sup>26</sup>  
--62. (New) A method for immunizing a feline which comprising administering to the feline an effective immunizing amount of the recombinant virus of claim <sup>1</sup>37<sup>1</sup>.

<sup>27</sup>  
--63. (New) A method for suppressing an immune response in a feline which comprises administering to the feline any effective suppressing amount of the recombinant virus of claim <sup>20</sup>56<sup>20</sup>.

Barbara J. Winslow and Mark D. Cochran  
Serial No.: Not Yet Known  
Filed: Herewith

<sup>28</sup>  
--64. (New) The method of claim ~~61~~<sup>25</sup>, wherein the administering comprises intravenous, subcutaneous, intramuscular, transmuscular, topical, oral, or intraperitoneal administration.

<sup>29</sup>  
--65. (New) The method of claim ~~65~~<sup>27</sup>, wherein the feline is the recipient of a transplanted organ or tissue or is suffering from an immune response.

<sup>30</sup>  
--66. (New) A method for suppressing an immune response in a feline which comprises administering to the feline an antisense nucleic acid capable of hybridizing to and inhibiting translation of: (a) a feline CD28 mRNA transcript, (b) a feline CD80 transcript, or (c) a feline CD86 mRNA transcript the antisense nucleic acid being present in an amount effective to inhibit translation and thus suppress the immune response in the feline.

<sup>30</sup>  
--67. (New) A method for reducing or abrogating a tumor in a feline which comprises administering to the tumor in the feline a recombinant virus of claim ~~27~~<sup>31</sup>, wherein the nucleic acid encodes a feline CD80 protein, a feline CD86 protein or a combination thereof in an amount effective reduce or abrogate the tumor.

<sup>31</sup>  
--68. (New) The method of claim ~~67~~<sup>30</sup>, wherein the recombinant virus further comprises, and is capable of expressing, a feline tumor associated antigen and the administration is effected systemically.

<sup>32</sup>  
--69. (New) The recombinant virus of claim ~~27~~<sup>31</sup>, further comprising a nucleic acid encoding feline immunodeficiency virus genome or a portion thereof.

<sup>33</sup>  
--70. (New) The recombinant virus of claim ~~27~~<sup>31</sup>, further

Barbara J. Winslow and Mark D. Cochran  
Serial No.: Not Yet Known  
Filed: Herewith

comprising a nucleic acid encoding feline leukemia virus genome or a portion thereof.

*1 concurred*  
*Subc 3*  
--71. (New) The recombinant virus of claim 69, further comprising a nucleic acid encoding feline IL12, p35 or p40.

--72. (New) The recombinant virus of claim 70, further comprising a nucleic acid encoding feline IL12, p35 or p40.

*3629*  
--73. (New) A vaccine which comprises an effective immunizing amount of the recombinant virus of claim ~~69~~<sup>32</sup> and a suitable carrier.

*3730*  
--74. (New) A vaccine which comprises an effective immunizing amount of the recombinant virus of claim ~~70~~<sup>33</sup> and a suitable carrier.

---

REMARKS

Claims 1-36 were pending in the subject application. By this amendment applicants have canceled claims 1-36 without prejudice or disclaimer, and added new claims 37-74. Accordingly, upon entry of this Amendment, claims 37-74, will be pending and under examination.

Applicants maintain that new claims 37-74 raise no issue of new matter. According, the entry of this Preliminary Amendment and the allowance of the claims now pending in this application are respectfully requested.